

## **REMARKS**

Claims 2-21 are pending in the application. Claims 2-4, 6-9, 11-18, 20 and 21 are rejected. Claims 5, 10 and 19 are objected to. Claim 5 has been amended to correct for dependency. No new matter is introduced with these amendments.

### **Reply to the Rejection of Claim 2-4, 6-9, 11-18, 20 and 21 under 35 U.S.C. § 112, 1<sup>st</sup> Paragraph**

The Examiner has rejected claims 2-4, 6-9, 11-18, 20 and 21 as not being enabling. Specifically, the Examiner states –

[T]he specification, while being enabling for sago and potato starch, does not reasonably provide enablement for any amylose-containing starch.

Applicant claims a process of making a dough by adding to the dough an amylose-containing starch; this starch has specific properties and give the dough specific properties. The specification shows that only sago and potato starch give the properties claimed; yet the claims encompass all amylose-containing starch. The claims are not enabling for any amylose-containing starch because only sago and potato starch give the properties claimed.

For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 2-4, 6-9, 11-18, 20 and 21 under 35 U.S.C. § 112, 1<sup>st</sup> paragraph.

The present application describes starches that are suitable as a continuous matrix binder in dough that would otherwise break apart, as well as a method for identifying suitable starches. The application teaches that the starch can be any amylose-containing starch that meet a certain elastic modulus and phase angle criteria (U.S. Publication No. 2002/0041923, ¶ 0015; ¶ 0022, lines 6-9). The amylose-containing starch can be prepared using various processing conditions. Depending upon, for example, the concentration of the starch processed and the pH of the starch slurry, certain starches may meet the criteria under one set of processing conditions and not meet the criteria under other processing conditions. As noted in the specification, the processing conditions can affect the degree of cook, which in turn can affect the elastic modulus and phase angle criteria of the processed starch (U.S. Publication No. 2002/0041923, ¶¶ 0020-0021). The specification then illustrates in the Examples the usefulness of several different types of base starches, all prepared under the same set of processing conditions described in Example 1.

Obviously, as explained in the specification, by varying those processing conditions, it is possible that the useful base starches would vary. The examples illustrate one set of processing conditions. Based upon that particular set of processing conditions, sago and potato starches proved useful. Examples using other processing conditions may result in other processed starches being suitable as a matrix binder.

Compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph, does not turn on whether an example is disclosed (M.P.E.P. § 2164.02). The specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without an undue amount of experimentation. *In re Borkowski*, 422 F.2d 904, 908, 164 USPQ 642, 645 (CCPA 1970). Accordingly, as shown above, by varying the processing conditions of the starches, other starches may meet the elastic modulus and phase angle criteria and prove suitable for use as a dough binder. The specification clearly states that any amylose-containing starch may be used. The examples, using one set of processing conditions, show that potato and sago starches are useful when processed as described in the examples. For at least these reasons, claims 2-4, 6-9, 11-18, 20 and 21 are enabling for all amylose-containing starches.

It is believed that these remarks overcome the Examiner's rejection of those claims as not being enabling. Withdrawal, therefore, of the rejection of claims 2-4, 6-9, 11-18, 20 and 21 under 35 U.S.C. § 112, first paragraph is respectfully requested.

#### **Reply to the Rejection of Claim 21 under 35 U.S.C. § 112, 1<sup>st</sup> paragraph**

The Examiner has rejected claim 21 as failing to comply with the written description requirement. Specifically, the Examiner states that "the limitation in claim 21 is not supported by the original disclosure. The specification does not disclose the dough is a low fat dough." For the following reasons, Applicants respectfully traverse the Examiner's rejection of claim 21 under 35 U.S.C. § 112, 1<sup>st</sup> paragraph.

In the 'Background of the Invention' of the present specification, Applicants show that starch behavior in baked products is a function of various factors, such as the type of flour used and other ingredients used in the product formulation, including shortening or fat (¶ 0003). It is known that waxy, high amylopectin starches typically provide the best dough in low or no-gluten

containing baked products because those starches improve dough workability and expansion (§ 0005). However, amylose-containing starches tend to form dough that is dry, crumbly and broken, *i.e.*, these starches tend to harden the dough (§ 0006). To make dough containing amylose-containing starches suitable for use, that dough requires special processing conditions. This includes the addition of significant levels of fat (*e.g.*, 2-7%), needed to overcome dough textural deficiencies (§ 0007).

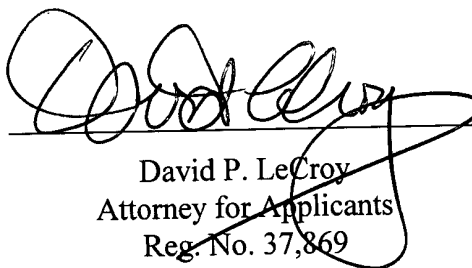
In contrast to those amylose-containing formulations found in the art, the present application teaches a dough having amylose-containing starch that is workable and that is prepared without the addition of any fat. This is exemplified in Example 2 of the present application. Example 2 provides a dough formulation comprised of masa, water and starch that results in an elastic and workable masa dough. No fat is included in this formulation. Accordingly, the disclosure of the present application does disclose low fat dough.

It is believed that these remarks overcome the Examiner's rejection of claim 21 as failing to comply with the written description requirement under 35 U.S.C. § 112, 1<sup>st</sup> paragraph. Withdrawal of the rejection is respectfully requested.

It is believed that the above remarks overcome the Examiner's rejections of the claims under 35 U.S.C. §§ 112, first paragraph as indicated herein above. Withdrawal of the rejections is therefore respectfully requested. Allowance of the claims is believed to be in order, and such allowance is respectfully requested.

Dated: 17 November 2003

NATIONAL STARCH AND CHEMICAL  
COMPANY  
Post Office Box 6500  
Bridgewater, New Jersey 08807-0500  
Phone 908.683.5433  
Fax 908.707.3706

  
David P. LeCroy  
Attorney for Applicants  
Reg. No. 37,869